

SOC Assignment 3

Execution:

Testing Both Buyers: buyer folder contains two sub folders Buyer_A and Buyer_B. While testing Buyer_A place the buyer.py located inside Buyer_A in the buyer folder and execute the program and similarly when it comes to Buyer_B place the buyer.py located inside Buyer_B in the buyer folder and execute the program to test Buyer_B implementation.

Testing Payloads: Check the Testing.txt to test the enactments performed by each buyer. It contains example payloads to execute.

Note: Execute Buyers one after the other. They cannot be executed parallelly due to endpoint issues from AWS. Attaching the logs for both Buyer_A and Buyer_B in the logs folder.

Protocol:

The protocol contains information about all the interactions happening between actors like Buyer, Merchant, and Shipping Service.

Roles:

a. Buyer:

i. Actions

- Submits order to Merchant, with address and name as order detail.
- Requests quote from Merchant and indicates an accept or reject based on the offer.
- Send cancel order request to Merchant.
- Submits payment to Merchant for the order.
- Receives item from shipping service.
- Receives refund directly from Merchant for canceled order.
- Receives refund directly from Merchant for a rejected order.
- Receives refund directly from Merchant for a defective item.

ii. Enactments

■ Buyer A

- a. Buyer can place an order followed by payment.
- b. Buyer can cancel the order only before shipping. Once the order is cancelled the buyer gets refunded for it.
- c. Buyer cannot cancel the order once the shipping has started. He/She has to receive the item.

■ Buyer B

- a. And also if a merchant rejects the order due to some reason like out of stock, the order gets cancelled and the buyer gets refunded for it.¹

¹ Vishnu Vardhan Reddy Challa

- b. Buyer B also supports all the enactments that Buyer A supports.
- c. Let's say there is a case where the buyer has properly placed the order but while shipping the item got damaged. In that case the buyer gets refunded for the defective item.

b. Merchant:

i. Actions

- Receives order details and payment from Buyer.
- Receives message from Buyer saying order has been canceled, and takes no further action.
- Sends the item to the shipper for shipment.
- Notifies the buyer about tracking and shipping info.
- Get tracking updates from shipping service.
- Notifies Buyer about defective item and performs refund.

ii. Enactments

- Decides whether to accept or reject the order based on the stock available.
- Takes no further action on a cancelled order and performs a refund for it.
- Takes responsibility for sending the order to shipping service and provides updates on the shipping status to Buyer.

c. Shipping Service:

i. Actions

- Receives order information from merchant.
- Packs and ships the item to the buyer.
- Provides tracking numbers to merchant.
- Confirms delivery to merchant with tracking number.
- Reports defective items to merchants.

ii. Enactments

- Reports if an item gets defective during the shipping and delivery process.
- Shares the shipping and tracking information along with delivery confirmation with the merchant.
- Delivers the order at the buyer's address.²

² Vishnu Vardhan Reddy Challa